

CLAIMS

What is claimed is:

1. A method for improving the transmission efficiency of a short data burst (SDB) in a CDMA telecommunications network, the method comprising the steps of:

generating an SDB comprising:

a service reference identifier;

a service option omit field indicating whether a service option identifier is to be included or omitted from the short data burst; and

a data block; and
transmitting the SDB.

2. The method of Claim 1 wherein the steps are performed by a base station.

3. The method of Claim 1 wherein the steps are performed by a mobile station.

4. The method of Claim 1 wherein the service option omit field is defined by the network.

5. The method of Claim 1 wherein the service option omit field is defined by the network in a non-negotiable service configuration record transmitted to the mobile station in one of a service connect message, a general handoff direction message, or a universal handoff direction message.

6. The method of Claim 1 wherein the service option omit field is defined by the network to omit the service option identifier if the protocol version in use by the mobile station is less than seven, and is carried in a non-negotiable service configuration record transmitted to the mobile station in one of a service connect message, a general handoff direction message, or a universal handoff direction message.

7. A method for improving the transmission efficiency of a short data burst (SDB) in a CDMA telecommunications network, the method comprising the steps of:

generating an SDB, further comprising the steps of:

appending to the SDB a service reference identifier;

appending to the SDB a service option omit field containing a pre-defined value indicating whether a service option identifier is to be included or omitted from the SDB; and

appending to the SDB a datablock into the SDB; and
transmitting the SDB.

8. The method of Claim 7, wherein the step of generating further comprises:

determining from the service option omit field whether the service option identifier is to be included ~~in or omitted from the~~ SDB;

only upon a determination that the service option identifier is to be included, appending to the SDB a service option identifier; and

9. The method of Claim 7 wherein the steps are performed by a base station.

10. The method of Claim 7 wherein the steps are performed by a mobile station.

11. The method of Claim 7 wherein the service option omit field is defined by the network.

12. The method of Claim 7 wherein the service option omit field is defined by the network in a non-negotiable service configuration record transmitted to a mobile station in one of a service connect message, a general handoff direction message, or a universal handoff direction message.

13. The method of Claim 7 wherein the service option omit field is defined by the network to omit the service option identifier if the protocol version in use by the mobile station is less than seven, and is carried in a non-negotiable service configuration record transmitted to the mobile station in one of a service connect message, a general handoff direction message, or a universal handoff direction message.

14. A short data burst comprising:
a service reference identifier;

a service option omit field indicating whether a service option identifier is to be omitted from the short data burst; and
a data block.

- 5 15. A computer program product for generating a short data burst (SDB) in a telecommunications network, the computer program product having a medium with a computer program embodied thereon, the computer program comprising:
- 10 computer program code for appending to the SDB a service reference identifier;
computer program code for appending to the SDB a service option omit field containing a pre-defined value indicating whether a service option identifier is to be
15 included or omitted from the SDB;
computer program code for appending to the SDB a datablock into the SDB; and
computer program code for transmitting the SDB.
- 20 16. The computer program product of Claim 15, further comprising:
computer program code for determining from the service option omit field whether the service option identifier is to be included in or omitted from the SDB; and
25 computer program code, only upon a determination that the service option identifier is to be included, for appending to the SDB a service option identifier.

17. The computer program product of Claim 15 wherein the computer program code for is executable on a base station.

18. The computer program product of Claim 15 wherein the computer program code is executable on a mobile station.

19. The computer program product of Claim 15 wherein the service option omit field is defined by the network.

20. The computer program product of Claim 15 wherein the service option omit field is defined by the network in a non-negotiable service configuration record transmitted to a mobile station in one of a service connect message, a general handoff direction message, or a universal handoff direction message.

21. The computer program product of Claim 15 wherein the service option omit field is defined by the network to omit the service option identifier if the protocol version in use by the mobile station is less than seven, and is carried in a non-negotiable service configuration record transmitted to the mobile station in one of a service connect message, a general handoff direction message, or a universal handoff direction message.

22. A mobile station comprising:
a processor;

code executable by the processor for generating a Short Data Burst (SDB) comprising:

- a service reference identifier;
- a service option omit field indicating whether
- 5 a service option identifier is to be included or omitted from the short data burst; and
- a data block; and

code executable by the processor for transmitting the SDB.

10 23. The mobile station of Claim 22, further comprising:

- code executable by the processor for determining from the service option omit field whether the service option identifier is to be included in or omitted from
- 15 the SDB; and

code executable by the processor, only upon a determination that the service option identifier is to be included, for appending to the SDB a service option identifier.

20 24. The mobile station of Claim 22, wherein the service option omit field is defined by the network.

25 25. The mobile station of Claim 22, wherein the service option omit field is defined by the network in a non-negotiable service configuration record transmitted to a mobile station in one of a service connect message, a general handoff direction message, or a universal handoff direction message.

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26. The mobile station of Claim 22, wherein the service option omit field is defined by the network to omit the service option identifier if the protocol version in use by the mobile station is less than seven, and is carried in a non-negotiable service configuration record transmitted to the mobile station in one of a service connect message, a general handoff direction message, or a universal handoff direction message.

27. A base station comprising:
a processor
code executable by the processor for generating a Short Data Burst (SDB) comprising:
a service reference identifier;
a service option omit field indicating whether a service option identifier is to be included or omitted from the short data burst; and
a data block; and
code executable by the processor for transmitting the SDB.

28. The base station of Claim 27, further comprising:
code executable by the processor for determining from the service option omit field whether the service option identifier is to be included in or omitted from the SDB; and

code executable by the processor, only upon a determination that the service option identifier is to be included, for appending to the SDB a service option identifier.

29. The base station of Claim 27, wherein the service option omit field is defined by the network.

30. The mobile station of Claim 27, wherein the service option omit field is defined by the network in a non-negotiable service configuration record transmitted to a mobile station in one of a service connect message, a general handoff direction message, or a universal handoff direction message.

31. The mobile station of Claim 27, wherein the service option omit field is defined by the network to omit the service option identifier if the protocol version in use by the mobile station is less than seven, and is carried in a non-negotiable service configuration record transmitted to the mobile station in one of a service connect message, a general handoff direction message, or a universal handoff direction message.